

# Indiana Business - Information Technology

## Middle School Standards (Grades 6-8)

**Indiana State Board of Education Rule:** Middle school students are to receive instruction every year in a minimum of two of the following program areas: Agriculture, Business, Family and Consumer Sciences, and Technology Education (Industrial Technology). Based on this rule, four broad areas of Business content have been developed for integration into the Business program offered through the Indiana Business and Information Technology Middle School Curriculum. This content focuses on the needs of middle school students (sixth through eighth grades).

### Introduction

Serving the needs of early adolescents is the primary purpose of the middle school curriculum. Middle school students are concerned about determining their own unique identity, exploring a variety of interests, developing skills for working in peer groups and with adults, understanding and dealing with the world they are experiencing, connecting classroom learning with practical applications, and forming expectations for the future. Tools that students need for addressing these concerns include reading comprehension, writing and math skills, critical thinking skills, and computer literacy. In addition, middle school students need content that relates their personal change to choices they must make in the social and economic world. Business content provides a context in which students can learn more about themselves and how they relate to others and to their future in a world that is driven by business activity. In addition, the proficiencies achieved can be used effectively throughout their secondary and higher education curricula and in the workplace.

Economic survival in the 21st Century demands that students know and understand both basic and technical concepts of business as well as possess the ability to apply these concepts in a variety of settings. An education in business is critical to the fulfillment of virtually all career aspirations. There is a clear relationship between business concepts and the student expectations set forth in Indiana's Academic Standards for grades six through eight. The Standards require the application of computer and information processing skills in creating, proofreading, and editing written material. Also, locating appropriate reference resources and displaying and interpreting data are part of the reading and writing focus of the middle school. Business content in technology, personal finance, entrepreneurship and career exploration helps students develop problem-solving and decision-making competencies in realistic settings.

Middle school provides students with the stability they need while they are preparing for transition into high school and beyond. Today's global society challenges the talents and imagination of Indiana's diverse student population. Today, as never before, students face an environment that demands creative, innovative solutions to problems and that presents exciting opportunities for the future. Business courses make academic subjects more real world and show how reading, English, math, science, and social studies (academic core) can be applied in real-life situations.

The Indiana Business and Information Technology Middle School Curriculum focuses on concepts and applications that facilitate the development of competencies required for success in all academic areas and in real-world contexts. This curriculum relates closely to understandings and competencies students will need as their world expands and as they develop career interests. The four broad areas included in this curriculum are technology, career exploration, personal finance, and entrepreneurship. The performance expectations and instructional strategies in the [\*Indiana Middle School Curriculum Guidelines for Business and Information Technology\*](#) for each area provide many opportunities to engage students in learning and applying technology as a tool. This projects-based learning allows students an opportunity to complete real world activities they will approach in their future. It is also in

keeping with the NETS (National Educational Technology Standards) approach, which places emphasis on integrating technology into the entire school curriculum. The No Child Left Behind (NCLB) legislation mandates that students reach technological proficiency by the completion of the eighth grade. In addition, the need for students to gain personal finance knowledge and skills continues to mount as evidenced by our economy (i.e., increases in home mortgage foreclosures, personal-business bankruptcies, and credit card debt).

Additional information about each of the four curriculum areas is presented at the beginning of the section in which performance proficiencies for a specific area are listed. The topics included, which can vary in length, provide opportunities for students to explore each of the four areas and develop knowledge and skills needed for personal and school applications and for use in conjunction with other middle school courses—English, math, science, and social studies (academic core). These four curriculum areas provide a basis on which students can make decisions regarding their future educational and employment endeavors, as well as prepare them to conduct personal business activities.

*It is imperative to understand that this entire middle school curriculum (Technology, Career Exploration, Personal Finance, and Entrepreneurship) cannot be attained in just one exploration or one rotation class in a semester, trimester, or block program of studies. It is a sequential (technology first, then the other content areas) and developmental program of study. As students achieve technology proficiency, teachers should select content from other proficiency areas on the basis of the amount of the time available for business instruction in their middle school curriculum. There are many opportunities to develop technology proficiencies further as the other three content areas are taught.* The Career Planning and Success Skills and the Digital Communications Tools courses may be taught in the Indiana Business and Information Technology Middle School Curriculum. If the standards for these courses are met, students may receive high school credit.

The *Indiana Middle School Curriculum Guidelines for Business and Information Technology* document includes grids, which display the Content Standards, Performance Proficiencies, Instructional Strategies, Assessment Strategies, and Supplementary Resources for the middle school curriculum. The curriculum grid for each of the four Middle School Business and Information Technology areas includes the Indiana Academic Standards addressed in the Instructional Strategies for each content standard. Revisions of the *Indiana Middle School Curriculum Guidelines for Business and Information Technology* and grids are currently underway.

As noted previously, some technology standards should be taught before content in the other content areas, i.e., touch keyboarding. Some technology performance expectations can be taught either in sequential order or in context with the other content areas. Remember some content proficiencies may require a prerequisite knowledge of other items and, thus, sequence may play an important role in the delivery of the content. These standards identify what students need to know and be able to perform at the end of their middle school program. The specific grade level at which proficiencies are introduced depends on the individual school corporation and the amount of time that is available for business instruction.

On the following pages, the introduction to each of the four Business Middle School content areas provides a rationale for that particular content area and lists the source(s) that served as the basis for the standards for each area. The content areas are presented in the following order: Technology, Career Exploration, Personal Finance, and Entrepreneurship.

## Technology Performance Proficiencies

Proficiency in the use of technology tools is a requirement for success in academic, personal, business, and other workplace and societal environments. Technology proficiency is critical if students are to be prepared to access, analyze, interpret, synthesize, apply, and communicate information. Students need to understand and experience technology as a tool in solving problems, increasing productivity, and improving the quality of life. Not only do students need to be knowledgeable with regard to hardware and productivity software, but also they need to learn to be ethical, responsible, effective, and efficient users of technology.

In the Technology component of the Indiana middle school business curriculum, students will become proficient in the following components of the technology area: (1) basic concepts and operations of computer systems; (2) social, ethical, and human issues; (3) productivity, communications, research, problem-solving/decision-making tools, and keyboarding. (4) keyboarding is recognized as the primary input method; therefore, touch keyboarding mastery is required. The overall objective in this curriculum area is to enable students to meet the No Child Left Behind legislation that requires technological literacy for all students by the completion of grade eight. Instructional strategies, assessment strategies, and supplementary resources are presented in Part II of the document, *Indiana Middle School Curriculum Guidelines for Business and Information Technology*.

The Technology component of the middle school business curriculum supports and reinforces many of the Indiana Academic Standards. The Indiana Academic Standards addressed through the Instructional Strategies developed for each content standard are listed in the curriculum grid, which is included in the *Indiana Middle School Curriculum Guidelines for Business and Information Technology* document.

The Technology proficiencies contribute to student success in a variety of contexts, including the attainment of:

- ✚ NCLB technological proficiencies.
- ✚ Competencies needed (including reading comprehension, writing, math, and critical thinking) for academic core and other courses.
- ✚ Knowledge and skills needed for personal and business roles.
- ✚ Business and information technology foundation for high school courses.
- ✚ An awareness of the use of technology in careers.
- ✚ Problem-solving and decision-making skills based on the use of technology tools.
- ✚ Proficiencies and reinforcement of content in the Indiana Academic Standards.

The following points are pertinent to achieving the content standards and performance proficiencies for the Technology area:

- ✚ Some Technology proficiencies should be taught prior to teaching any of the other components of the middle school business curriculum.
- ✚ The first two performance proficiency categories (Technology Concepts and Technology Operations) include some performance proficiencies (e.g., keyboarding) that must be achieved at the beginning of the curriculum. Other performance proficiencies do not need to be taught in the order listed; however, in a few instances, prerequisite material will need to be taught.
- ✚ As students use software applications, they should be monitored for good input techniques (especially keyboarding) and effective use of the software.
- ✚ Technology proficiencies include producing multimedia products (combining text, audio, still images, animation, or video) in using the following tools: word processing, spreadsheet, presentation, publishing, database, and speech software.
- ✚ Flexibility is built in the entrepreneurship proficiencies.
- ✚ A “project-based” method for teaching middle school business technology is recommended because it uses authentic experiences. A project-based activity may encompass a variety of proficiencies across several curricular areas.
- ✚ Since middle school students are inquisitive and questioning, teachers must be cognizant of “teachable moments” and take advantage of them to teach relevant concepts.

The 2007 National Educational Technology Standards (NETS) developed by the International Society for Technology in Education (ISTE), the 2007 *National Standards for Business Education—What America's Students Should Know and Be Able To Do in Business, 2007*, the 2008 Indiana K-8 Technology Benchmarks, published textbooks, and technology standards documents from Indiana and other states were used as the basis for developing the performance expectations.

# TECHNOLOGY PROFICIENCIES

## T 1 Technology Concepts (Learning about Computers)

**T 1.1** *Standard: Students demonstrate functional understanding (including the use of appropriate terminology) of technology concepts, systems and operations, and their interactivity.*

- T 1.1.1 Describe a basic computer system and identify computer classifications and associated purposes (e.g. desktop, laptop, handheld, server)
- T 1.1.2 Explain the relationship between an operating system (system software--Windows, Linex, UNIX, MAC, mobile) and application software (word processing, spreadsheets, etc.)
- T 1.1.3 Explain the use of and the difference between temporary memory (RAM), permanent memory (ROM), and storage
- T 1.1.4 Explain the information processing cycle (input, process, storage, output, devices)
- T 1.1.5 Explain the purpose and necessity of file management, including folders and filenames
- T 1.1.6 Identify and discuss the variety of technologies used in society, including future trends

## T 2 Technology Operations (Learning to Use Computers)

**T 2.1** *Standard: Students use hardware and software components and understand the use of input and output devices.*

- T 2.1.1 Use effective keyboarding techniques
  - T 2.1.1.1 Demonstrate correct posture and arm/hand position
  - T 2.1.1.2 Demonstrate correct home keys hand position and keystroking
  - T 2.1.1.3 Demonstrate correct reaches to and keying of alphabetic keys, number/symbol keys, and special purpose keys
  - T 2.1.1.4 Demonstrate correct use of the 10-key pad
  - T 2.1.1.5 Demonstrate increasing speed proficiency so that a minimum of 35 words a minute (D grade level) with no more than 2 errors per minute is achieved by grade 8
  - T 2.1.1.6 Demonstrate improvement in keyboarding proficiency (speed and accuracy)
- T 2.1.2 Use hardware and peripherals (input and output devices) to support content area learning, including alternative input methods (e.g., speech-recognition, handwriting recognition)
  - T 2.1.1.1 Develop enunciation and reading skills with speech recognition technologies to enhance academic skills
  - T 2.1.1.2 Use mouse, keyboard, touch screen, stylus pen, speech, scanner, digital imaging and video, and other input devices
  - T 2.1.1.3 Develop digital penmanship skills to enhance academic skills
  - T 2.1.1.4 Use monitor, printer, and/or speakers (output devices)
- T 2.1.3 Evaluate and select appropriate input/output devices and storage media for specific projects
- T 2.1.4 Organize and manage files and folders including backing up

## **T 3                    Social, Ethical, and Human Issues of Technology (Learning to Be a Good Digital Citizen)**

**T 3.1**                    ***Standard:** Students understand the social, legal, ethical, and human issues related to technology use. Students practice responsible use of hardware, software, and data. Students interact positively with technology independently and in collaboration with others.*

- T 3.1.1                Demonstrate safe, legal, and responsible use of information and technology (e.g. passwords, firewalls, spam, security, AUP, social networking)
- T 3.1.2                Apply ergonomic techniques to information technology tasks to avoid injury
- T 3.1.3                Demonstrate compliance with the school's Acceptable Use Policy
- T 3.1.4                Demonstrate an understanding of plagiarism and fair use; respect copyright laws of information producers (e.g., piracy; illegal downloading; licensing infringement; inappropriate use of software, hardware, and mobile devices)
- T 3.1.5                Demonstrate appropriate etiquette in the use of technology
- T 3.1.6                Explain cyber bullying and its potential consequences
- T 3.1.7                Explain how changes in technology affect the workplace and society (e.g., computer recycling, telecommunicating, mobility, efficiency, and security)

## **T 4                    Technology as a Productivity Tool (Learning to Solve Problems and Make Decisions with Technology)**

**T 4.1**                    ***Standard:** Students use technology as a tool to enhance learning and creativity. Students are able to use technology to increase productivity in developing models, publications, and other creative works.*

- T 4.1.1                Demonstrate operations common to software applications
  - T 4.1.1.1            Start an application (Start menu, desktop icon)
  - T 4.1.1.2            Create, name, and save files
  - T 4.1.1.3            Open, modify, and save existing files
  - T 4.1.1.4            Use the Save As and Save commands appropriately
  - T 4.1.1.5            Open files from and save files to a network folder, the hard drive, or other storage media
  - T 4.1.1.6            Preview and print files
  - T 4.1.1.7            Perform tasks using menus, buttons, and shortcuts (e.g., menu commands, toolbar buttons, shortcut menus, keyboard shortcuts)
  - T 4.1.1.8            Use the vertical and horizontal scroll bars
  - T 4.1.1.9            Use Help and online Help
  - T 4.1.1.10          Use dialog boxes/task panes
  - T 4.1.1.11          Exit an application (File menu, Close button)
- T 4.1.2                Integrate data between word processing, worksheet, and presentation applications
- T 4.1.3                Select appropriate software for completing projects
- T 4.1.4                Follow instructions (instructor, text, manuals, and/or screen)
- T 4.1.5                Work independently and as a team member (includes efficient use of time, organization of work, etc.)
- T 4.1.6                Handle and use of supplies/equipment
- T 4.1.7                Demonstrate appropriate conduct in the classroom

## **T 4.2** *Word Processing*

**T 4.2.1** *Standard: Students will use document production software to compose, edit, print, and design.*

- T 4.2.1.1 Use correct keyboarding techniques
- T 4.2.1.2 Access and edit previously created documents, including the effective use of editing commands (e.g., proofreading/editing marks, delete, cut/copy/paste, drag-and-drop)
- T 4.2.1.3 Use spell check, thesaurus, and grammar features
- T 4.2.1.4 Enhance document appearance (e.g., fonts, lists: bulleted, numbered, symbols, special characters, clip art, text wrapping, drawing tools, headers/footers, tables, columns, footnotes/endnotes, borders/shading)
- T 4.2.1.5 Change page setups (e.g., document margins, page orientation, alignment, breaks, paragraphing, format characters, and page numbers)
- T 4.2.1.6 Cite references in an approved format (e.g., MLA, APA)

## **T 4.3** *Spreadsheets*

**T 4.3.1** *Standard: Students will use spreadsheets to calculate, graph, organize, and present data.*

- T 4.3.1.1 Create workbooks, worksheets (including basic formulas--sum, average, max, min, count), and charts
- T 4.3.1.2 Apply formatting features to customize tables, charts, and graphs and to make spreadsheets and charts attractive and easy to read
- T 4.3.1.3 Produce simple charts (bar, pie, and line) and graphs from a spreadsheet
- T 4.3.1.4 Distinguish different types of charts and graphs, and choose the most appropriate type to represent given data
- T 4.3.1.5 Organize, sort, and analyze data

## **T 4.4** *Databases*

**T 4.4.1** *Standard: Students will use databases to enter, find, organize, report, and update information.*

- T 4.4.1.1 Create and update database files
- T 4.4.1.2 Create and manage database objects (e.g., wizard, tables, views, fields, queries, forms, reports)
- T 4.4.1.3 Organize and analyze data



## **T 4.5**                      **Multimedia**

**T 4.5.1**                      **Standard:** *Students use a combination of text, sounds, images, video, and animation to produce presentations, and projects.*

- T 4.5.1.1                  Create well-organized, informative presentations through the use of templates, autocontent, and wizards
- T 4.5.1.2                  Use basic design guidelines to enhance visual presentations (e.g., appropriate
- T 4.5.1.3                  Modify presentations (e.g., slide design, insert-move-delete slides, headers-footers, background, clip-art pictures, drawings, audio clips, video clips, transitions, timings, animation, hyperlinks)
- T 4.5.1.4                  Present multimedia project using appropriate delivery technique
- T 4.5.1.5                  Technology as a Productivity Tool (Learning to Solve Problems and Make Decisions with Technology)
- T 4.5.1.6                  Demonstrate the ability to develop a simple Web page designed to convey information

## **T 5**                              **Technology as a Communication and Collaboration Tool (Learning to Use Telecommunications to Interact with Others)**

**T 5.1**                              **Standard:** *Students use technology to enhance the effectiveness of communication, including collaboration.*

- T 5.1.1                      Apply the rules of digital communication etiquette.
- T 5.1.2                      Interact, collaborate, and publish effectively with others (e.g., e-mail, chat, instant messaging, blogging, net meetings)
- T 5.1.3                      Explain terms associated with the safe, effective, and efficient use of the Internet (e.g., passwords, firewalls, spam, security).
- T 5.1.4                      Explain the advantages and disadvantages of open source software
- T 5.1.5                      Demonstrate use of open source software to create products (e.g. blogs, wikis, podcasts, media sharing, bookmarking, document production, web site creation)

## **T 6**                              **Technology as an Information Research Tool (Learning to Use Technology to Access and Retrieve Digital Information)**

**T 6.1**                              **Standard:** *Students gather, evaluate use, and cite information from technology sources.*

- T 6.1.1                      Log on to preselected Internet sites and viewing information
- T 6.1.2                      Access and use Internet/intranet search engines and directories
- T 6.1.3                      Access and explain various types of online resources
- T 6.1.4                      Use Web browser functions to access information (e.g., favorites, tags, feeds, and social bookmarking)
- T 6.1.5                      Use appropriate search procedures (e.g., boolean, key word, natural language, and directory)
- T 6.1.6                      Evaluate Web content for accuracy, authority, objectivity, currency, coverage.
- T 6.1.7                      Classify, order, and interpret retrieved information
- T 6.1.8                      Cite sources of all data



## Career Exploration Performance Proficiencies

Career exploration can (and should) begin at an early age; however, as students enter middle school they are ready to gain an understanding of their own interests, skills, and attitudes; career alternatives and the ever-evolving requirements of the workplace; and the relationship of school and lifelong learning to career success. Stereotyping of sex-roles, being at risk of dropping out of school, and having little awareness of the type of work involved in existing career aspirations are important reasons for providing students with career exploration in the middle school business curriculum. At this level, students can make tentative choices related to their interests and research these career possibilities as a basis for making informed career choices and preparing for high school courses. Also, now is the time to make students aware of the 21st Century Scholar Program. Through this program, eligible students can be challenged to do well academically and to, thereby, earn college scholarships.

According to information in Digest No. 155 published by the ERIC Clearinghouse on Adult, Career, and Vocational Education: Vocational Education in the Middle School by Wendy Schwartz middle school career education programs can help students plan for a career by:

- ✚ Exploring with students how they can live successfully and work in a culturally diverse world
- ✚ Helping students recognize their interests, aptitudes, and abilities and understand adult roles
- ✚ Helping students understand the broad scope of work and career possibilities available currently and in the future
- ✚ Helping students broaden their aspirations beyond the stereotypes of gender, socioeconomic status, and ethnicity
- ✚ Integrating career and academic education to promote intellectual development and the acquisition of higher level thinking and problem-solving skills
- ✚ Assisting students with the development of social skills, personal values, and self-esteem
- ✚ Working with families to support their children's career aspirations

These benefits of career exploration in the middle school can be realized through the Indiana career exploration proficiencies which center on:

- ✚ Self-awareness (Who Am I?)
- ✚ Workplace expectations (Where Am I Going?)
- ✚ Career strategies and actions (How Do I Get There?)

Career Exploration provides many opportunities to teach/reinforce/apply many of the concepts and skills in the technology area. Instructional strategies, assessment strategies, and supplementary resources are present in Part II of the [Indiana Middle School Curriculum Guidelines for Business and Information Technology](#) document. Also the career exploration component of the middle school business curriculum supports and reinforces many of the Indiana Academic Standards. The Indiana Academic Standards addressed through the Instructional Strategies developed for each content standard are listed in the curriculum grid, which is included in the [Indiana Middle School Curriculum Guidelines for Business and Information Technology](#) document.

The Career Exploration proficiencies contribute to student success in a variety of contexts, including the attainment of:

- ✚ NCLB technological proficiencies.
- ✚ Competencies needed for academic core and other courses.
- ✚ Knowledge and skills needed for personal and business roles.
- ✚ Business and information technology foundation for high school courses.
- ✚ An awareness of the use of technology in careers.
- ✚ Problem-solving and decision-making skills involving the use of technology tools.
- ✚ Proficiencies and reinforcement of content in the Indiana Academic Standards.

The following points are pertinent to achieving the content standards and performance proficiencies for the Career Exploration area:

- ✚ Some Technology proficiencies should be taught prior to teaching the career exploration component or any of the other components of the middle school business curriculum.
- ✚ Because the configuration of the Middle School Business curriculum differs from school to school based on the time allocated to practical arts program areas, schools/teachers need to select content from this component that will give students a foundation on which to plan their high school program and other experiences.
- ✚ Flexibility is built in the career exploration proficiencies.
- ✚ As students use software applications, they should be monitored for good input techniques (especially keyboarding) and effective use of the software.
- ✚ A “project-based” method for teaching middle school business technology is recommended because it uses authentic experiences. A project-based activity may encompass a variety of proficiencies across several curricular areas.
- ✚ Since middle school students are inquisitive and questioning, teachers must be cognizant of “teachable moments” and take advantage of them to teach relevant concepts.

The National Business Education Association’s National Standards for Business Education (2007), published textbooks, and career education standards documents from Indiana and other states were used as the basis for developing the performance expectations.

# CAREER EXPLORATION PROFICIENCIES

## CE 1 Self-Awareness/Assessment (Who Am I?)

**CE 1.1** *Standard: Students assess personal skills, abilities and aptitudes, personal strengths and weaknesses, values, achievements, lifestyles, and learning styles.*

- CE 1.1.1 Formulate a personal profile by using the results from personality, interest, aptitude, values, lifestyles, and learning styles assessments
- CE 1.1.2 Identify five values that are considered important in making a career choice
- CE 1.1.3 Identify skills needed for career choices and match to personal abilities and interests.
- CE 1.1.4 Identify strengths and areas in which assistance is needed at school
- CE 1.1.5 Apply results of assessments to personal abilities in order to make realistic career choices

## CE 2 Career Exploration/Research (Where Am I GOING?)

**CE 2.1** *Standard: Students use a variety of career and technical resources to explore and develop a tentative career profile.*

- CE 2.1.1 Describe and differentiate among job, occupation, and career
- CE 2.1.2 Describe trends in the workplace (e.g., economic, technology, lifelong, social, impact of change, etc.)
- CE 2.1.3 Demonstrate the ability to locate, understand, and use career information (e.g., Online sources, media, publications, personal interviews, etc.)
- CE 2.1.4 Identify skills that are transferable from one occupation to another
- CE 2.1.5 Demonstrate use of career resources to identify occupational clusters, career opportunities and trends within each cluster, employment outlook, and education/training requirements
- CE 2.1.6 Identify and demonstrate the steps in the decision-making process to set short- and long- term goals for career decisions (e.g., high school courses, college interests, etc.)

## **CE 3                      Career Strategies/Actions (How Do I Get There?)**

### **CE 3.1                      *Standard: Students use a variety of career and technical resources to explore and develop a career profile.***

- CE 3.1.1                      Demonstrate personal qualities (e.g., dependability, punctuality, responsibility, integrity, getting along with others) that are needed to be successful in school/workplace
- CE 3.1.2                      Demonstrate skills to interact positively with others (e.g., conflict resolutions, diversity, stereotypes, workplace roles, listening, verbal skills, etc.)
- CE 3.1.3                      Demonstrate workplace communication skills through using effective interpersonal skills (oral, written, and nonverbal)
- CE 3.1.4                      Demonstrate employability skills (e.g., working on a team, problem-solving, organizational skills, and skill improvement/learning new skills)
- CE 3.1.5                      Demonstrate career and job self-management (e.g., the importance of planning, following the steps involved in handling conflict, following the steps involved in dealing with stress, and identifying the steps for planning school projects)
- CE 3.1.6                      Demonstrate an understanding of workplace diversity (e.g., people who are different from oneself, different personal beliefs and attitudes, changing roles of men and women, nontraditional occupations, stereotypes, biases, culture, intellectual, environmental barriers)

## Personal Finance Performance Proficiencies

The knowledge and expertise to successfully manage personal finances is a survival requirement for all individuals. The well-being of both the individual and the economy are dependent on individuals who can make effective decisions in personal financial matters. Newspaper reports, magazines articles, and research studies indicate that situations such as excessive credit card debit, inadequate savings, mortgage foreclosures, living beyond one's income, etc., are causing major problems for individuals and the economy. Financially literate adults can be good financial planners. The process of producing financially literate adults involves grades K-12. The role of the middle school in this process is pivotal. The curiosity and interests of middle school students, combined with their academic skills, have provided them with the readiness to learn some essential personal finance principles and practices. It is important that the middle school business curriculum take advantage of this readiness. Personal finance education is a lifelong learning process that can have a positive influence on student achievement in a wide variety of contexts.

The Indiana Personal Finance Performance Proficiencies center on: (1) financial responsibility and decision making; (2) the relationship of education, income, careers, and other life choices to achieving financial goals; (3) money management; credit and debt management; (4) saving and investing; and risk management and insurance. As noted elsewhere, the technology proficiencies should be taught prior to teaching any of the other components of the middle school business curriculum. Personal finance provides opportunities to learn/reinforce/apply many of the concepts and skills learned in the technology area. The tremendous importance of students being financially literate necessitates that this area be given high priority in the middle school business curriculum. Instructional strategies, assessment strategies, and supplementary resources are presented in Part II of the document, *Indiana Middle School Curriculum Guidelines for Business and Information Technology*.

Also, the personal finance component of the middle school business curriculum supports and reinforces many of the Indiana Academic Standards. The Indiana Academic Standards addressed through the Instructional Strategies developed for each content standard are listed in the curriculum grid, which is included in the *Indiana Middle School Curriculum Guidelines for Business and Information Technology* document.

The Personal Finance proficiencies contribute to student success in a variety of contexts, including the attainment of:

- ✚ NCLB technological proficiencies.
- ✚ Competencies needed for academic core and other courses.
- ✚ Knowledge and skills needed for personal and business roles.
- ✚ Business and information technology foundation for high school courses.
- ✚ An awareness of the use of technology in careers.
- ✚ Problem-solving and decision-making skills involving the use of technology tools.
- ✚ Proficiencies and reinforcement of content in the Indiana Academic Standards.

The following points are pertinent to achieving the content standards and performance proficiencies for the Personal Finance area:

- ✚ Some Technology proficiencies should be taught prior to or in conjunction with the personal finance component or any of the other components of the middle school business curriculum.
- ✚ Because the configuration of the Middle School Business curriculum differs from school to school based on the time allocated to practical arts program areas, schools/teachers need to select content from this component that will serve their students' needs and interests to the greatest extent.
- ✚ Flexibility is built in the personal finance proficiencies.
- ✚ The performance proficiencies do not have to be taught in the order listed; however, in a few instances, prerequisite material will need to be taught.
- ✚ As students use software applications, they should be monitored for good input techniques (especially keyboarding) and effective use of the software.

- ✚ A “project-based” method for teaching middle school business technology is recommended because it uses authentic experiences. A project-based activity may encompass a variety of proficiencies across several curricular areas.
- ✚ Since middle school students are inquisitive and questioning, teachers must be cognizant of “teachable moments” and take advantage of them to teach relevant concepts.

The Jump\$tart Coalition for Personal Financial Literacy’s National Standards in K-12 Personal Finance Education (3<sup>rd</sup> edition), the National Business Education’s National Standards for Business Education (2007), the Indiana Financial Literacy Education Middle School Academic Standards, published textbooks, and standards documents from Indiana and other states were used as the basis for developing the performance expectations.

# PERSONAL FINANCE PROFICIENCIES

## **PF 1            Financial Responsibility and Decision Making (Learning to Find and Use Reliable Information and to Apply Decision-Making Principles to Manage Personal Finances)**

**PF 1.1**            ***Standard:** Students demonstrate knowledge and understanding of concepts and practices related to management of individual and family finances.*

PF 1.1.1           Define and give examples of economic wants and needs

PF 1.1.2           Define and give examples of scarcity

PF 1.1.3           Define and give examples of the opportunity cost(s) and trade-offs of personal choices

PF 1.1.4           Demonstrate understanding of rational economic decision making by explaining the advantages and disadvantages of alternatives in a given situation

PF 1.1.5           Apply the steps in a rational decision-making process to a situation involving an individual making an economic decision

PF 1.1.6           Give examples of the benefits of financial responsibility and the costs of financial irresponsibility

**PF 1.2**            ***Standard:** Students find and evaluate relevant, reliable financial information for making personal financial decisions.*

PF 1.2.1           Analyze strengths and weaknesses of financial information from a variety of print and online resources

PF 1.2.2           Research major consumer protection laws and other resources relevant to making decisions and resolving complaints

PF 1.2.3           Demonstrate strategies for understanding various attitudes about money and for discussing financial issues with family and/or financial personnel

PF 1.2.4           Describe the actions an individual can take to control access to information related to personal financial transactions/activities (e.g., safeguard personal info, identity theft, phishing, scams, disposal of financial documents)

## **PF 2            Education, Income, Careers, and Life Choices (Learning the Relationships to Achieving Financial Goals)**

**PF 2.1**            ***Standard:** Students understand how education, income, and careers and other life choices relate to achieving financial goals.*

PF 2.1.1           Explain, by using an example, how education and/or training can affect lifetime income

PF 2.1.2           Analyze, using online and printed sources, characteristics and requirements of occupations of interest, including entrepreneurial opportunities and compare to personal skills



<b>PF 2.2</b>	<b><i>Standard: Students identify and analyze various forms of income/compensation</i></b>
PF 2.2.1	Explain the difference between earned and unearned income and give an example of each
PF 2.2.2	Distinguish between income and wealth
PF 2.2.3	Identify sources of unearned income (gifts, etc.)
PF 2.2.4	Differentiate between gross and net income and explain items commonly withheld from gross pay
PF 2.2.5	Give examples of employee benefits and explain why they are forms of compensation
PF 2.2.6	Explain the concept of taxes and how taxes affect purchasing power; identify the types of taxes individuals commonly incur
<b>PF 3</b>	<b>Money Management (Developing Financial Goals and Budgets and Consumer Skills)</b>
<b>PF 3.1</b>	<b><i>Standard: Students organize and plan personal finances and use a budget to manage cash flow.</i></b>
PF 3.1.1	Explain basic budget categories and how they relate to spending practices
PF 3.1.2	Develop a system for organizing, keeping and using financial records
PF 3.1.3	Develop short- and long-term financial goals
PF 3.1.4	Identify the reasons charitable giving, volunteer service, and philanthropic gifts should be considered in financial plans
PF 3.1.5	Develop a personal financial plan/budget
<b>PF 3.2</b>	<b><i>Standard: Students analyze financial institution services and apply consumer skills.</i></b>
PF 3.2.1	Identify the rights, responsibilities, advantages, and disadvantages associated with using services of various types of financial institutions
PF 3.2.2	Explain the steps in establishing and maintaining financial accounts, including checking, savings, on-line banking, and investments
PF 3.2.3	Compare the advantages and disadvantages of different payment methods, including cash, checks, stored-value cards, debit cards, credit cards, and electronic or online payment systems
PF 3.2.4	Use reliable consumer resources and practices to make buying decisions
PF 3.2.5	Analyze how advertising techniques and other external factors can influence spending decisions
PF 3.2.6	Apply consumer skills to purchase decision alternatives (immediate, delay, or cancel)

## **PF 4                      Credit and Debt Management (Maintaining Creditworthiness and Financial Security and Managing Debt)**

**PF 4.1**                      ***Standard:** Students analyze the costs, risks, responsibilities, and benefits of using various types of credit.*

- PF 4.1.1                      Identify the opportunity cost of credit decisions
- PF 4.1.2                      Identify methods of establishing and maintaining a good credit rating
- PF 4.1.3                      Evaluate the various methods of financing a purchase
- PF 4.1.4                      Explain interest as a cost of credit and explain why it is charged
- PF 4.1.5                      Analyze methods and benefits of avoiding or correcting credit and debt problems
- PF 4.1.6                      Analyze major consumer credit laws, including those pertaining to credit reports

## **PF 5                      Saving and Investing (Evaluating Savings and Investment Options to Meet Short- and Long-Term Goals)**

**PF 5.1**                      ***Standard:** Students analyze saving and investing for short-term needs and for building long-term financial security.*

- PF 5.1.1                      Describe why and how people save, include short- and long-term goals
- PF 5.1.2                      Identify the opportunity costs of saving
- PF 5.1.3                      Differentiate between saving and investing
- PF 5.1.4                      Distinguish between simple and compound interest
- PF 5.1.5                      Identify sources of investment information and analyze investment alternatives and the factors that affect the rate of return on investments, including inflation
- PF 5.1.6                      Identify strategies for planning for long-term financial goals
- PF 5.1.7                      Analyze how agencies that regulate financial institutions/markets protect investors

## **PF 6                      Risk Management and Insurance (Analyzing the Nature of Personal Financial Risk and the Choices Available for Protection Against Risk and Financial Loss)**

**PF 6.1**                      ***Standard:** Students identify risks in life and how to gain protection against the consequences of risk.*

- PF 6.1.1                      Analyze the nature of personal financial risk and the importance of protecting against financial loss
- PLF 6.1.2                      Describe the need for and value of various types of insurance (health, property, life, disability, and liability) during specific stages of the life cycle
- PF 6.1.3                      Explain the relationship between risk and insurance
- PF 6.1.4                      Explain how insurance deductibles work
- PF 6.1.5                      Identify the factors to consider when determining the amount of protection needed
- PF 6.1.6                      Explain the purpose and value of estate planning in risk management

## Entrepreneurship Performance Proficiencies

The study of Entrepreneurship provides middle school students with a foundation for better understanding the business environment in which they live and on which they can pursue an ambition to become an entrepreneur. Through the study of Entrepreneurship, middle school students:

- ✚ Are made aware of entrepreneurs' important contributions to our economy and society
- ✚ Understand and know themselves better through examining their own interests and likes and dislikes
- ✚ Acquire a basic understanding of economic, business, and financial concepts
- ✚ Explore ethical issues
- ✚ Learn about becoming informed consumers
- ✚ Develop workplace literacy
- ✚ Identify areas of interest which they want to study further in high school and college
- ✚ Improve planning and problem-solving skills

Entrepreneurship appeals to the inherent characteristics of many middle school students. For example, middle school students enjoy opportunities to be creative, to express themselves, and to explore ideas. Their curiosity and enthusiasm are assets as they design a product/service, develop peer relationships and connect with the business world in entrepreneurship activities. Middle school students like to feel they are in control. In an entrepreneurship class they set goals, experience success, and learn from mistakes. These experiences teach important life skills. In fact, entrepreneurship education is a lifelong learning process.

The entrepreneurship proficiencies center on (1) learning fundamental business concepts related to becoming a successful entrepreneur; (2) determining whether one's personal traits and interests are typical of those of an entrepreneur; (3) determining and satisfying customer needs/wants and meeting business goals and objectives; (4) identifying and reaching the market (5) using financial concepts and tools needed by the entrepreneur to make business decisions; (6) establishing, maintaining, and analyzing appropriate records for making business decisions; (7) creating a plan for an entrepreneurial undertaking; (8) becoming aware of the nature of global markets; (9) learning how forms of business ownership, government, and ethics affect entrepreneurial operations; and (10) learning the purpose of business plans. Most middle school programs will not be able to incorporate all of the proficiencies in the Entrepreneurship area. Because the configuration of the Middle School Business curriculum differs from school to school based on the time allocated to the practical arts program areas, schools/teachers need to select content for the curriculum that will best serve their students' needs and interests.

Entrepreneurship provides opportunities to learn/reinforce/apply many of the concepts and skills learned in the Technology and in the Personal Finance areas. Instructional strategies, assessment strategies, and supplementary resources are presented in Part II of the [\*Indiana Middle School Curriculum Guidelines for Business and Information Technology\*](#) document. In addition, the entrepreneurship component of the middle school curriculum supports and reinforces many of the Indiana Academic Standards. The Indiana Academic Standards addressed through the instructional strategies are included in the [\*Indiana Middle School Curriculum Guidelines for Business and Information Technology\*](#) document.

The entrepreneurship proficiencies contribute to student success in a variety of contexts, including the attainment of:

- ✚ NCLB technological proficiencies.
- ✚ Competencies needed for academic core and other courses.
- ✚ Knowledge and skills needed for personal and business roles.
- ✚ Business and information technology foundation for high school courses.
- ✚ An awareness of the use of technology in careers.
- ✚ Problem-solving and decision-making skills involving the use of technology tools.
- ✚ Proficiencies and reinforcement of content in the Indiana Academic Standards.

The following points are pertinent to achieving the content standards and performance proficiencies for the entrepreneurship area:

- ✚ Some Technology proficiencies should be taught prior to teaching entrepreneurship or any of the other components of the middle school business curriculum.
- ✚ Because the configuration of the middle school business curriculum differs from school to school based on the time allocated to practical arts program areas, schools/teachers need to select content from this component that will give students a foundation on which to further their interest in and understanding of the business world.
- ✚ Flexibility is built in the entrepreneurship proficiencies.
- ✚ As students use software applications, they should be monitored for good input techniques (especially keyboarding) and effective use of the software.
- ✚ A “project-based” method for teaching entrepreneurship is recommended because it uses authentic experiences. A project-based activity may encompass a variety of proficiencies across several curricular areas.
- ✚ Since middle school students are inquisitive and questioning, teachers must be cognizant of “teachable moments” and take advantage of them to teach relevant concepts.

The National Content Standards for Entrepreneurship Education (developed by the Consortium for Entrepreneurship Education, 2004), Entrepreneurship Investigation (2007), the National Business Education’s National Standards for Business Education (2007), published textbooks, and entrepreneurship standards documents from Indiana and other states were used as the basis for developing the performance expectations.

# ENTREPRENEURSHIP PROFICIENCIES

## **EN 1 Basic Business Knowledge and Skills (Learning Fundamental Business Concepts Related to Becoming a Successful Entrepreneur)**

**EN 1.1** *Standard: Students demonstrate knowledge and understanding of concepts and practices related to the functioning of business in a free market economy.*

- EN 1.1.1 Explain the process of assessing opportunity costs and trade-offs in making choices involving scarce economic resources
- EN 1.1.2 Explain the role of business in society and give examples of types of businesses
- EN 1.1.3 Explain the principles of supply and demand and their relationship to price
- EN 1.1.4 Describe the need for and impact of ethical business practices
- EN 1.1.5 Explain the concepts of management, marketing management, operations management, financial management, human resource management, risk management, and strategic management

## **EN 2 Entrepreneurial Skills (Determining Whether One's Personal Traits and Interests Are Typical of Those of an Entrepreneur)**

**EN 2.2** *Standard: Students recognize that entrepreneurs possess unique characteristics and interests and evaluate the extent to which they possess those characteristics and interests.*

- EN 2.2.1 Define entrepreneurship
- EN 2.2.2 Identify the personal traits/behaviors of a successful entrepreneur
- EN 2.2.3 Identify one's own personal traits that are typical characteristics of an entrepreneur (e.g., leadership, personal assessment, personal management)
- EN 2.2.4 Compare the personal costs and benefits of choosing to become an entrepreneur
- EN 2.2.5 Differentiate between a manager and an entrepreneur
- EN 2.2.6 Describe the differences between being your own boss (an employer) and an employee
- EN 2.2.7 Describe a personal code of ethical behavior

## **EN 3 Entrepreneurial Opportunities (Determining and Satisfying Customer Needs/Wants and Meeting Business Goals and Objectives)**

**EN 3.1** *Standard: Students understand how product/service ideas are generated and assessed.*

- EN 3.1.1 Recognize opportunities resulting from other peoples' wants and perceived needs in the discovery process
- EN 3.1.2 Describe opportunities/problems that led to the development of successful entrepreneurial endeavors
- EN 3.1.3 Identify problems facing consumers and businesses and use a problem-solving process to resolve a problem facing consumers and businesses
- EN 3.1.4 Identify businesses that could be operated from an individual's home or on the Internet
- EN 3.1.5 Describe start-up requirement and risks
- EN 3.1.6 Determine and generate oppotunities for venture creation

## **EN 4                      Marketing (Identifying and Reaching the Market)**

**EN 4.1**                      ***Standard:** Students identify and determine how to reach and retain/increase customers.*

- EN 4.1.1                      Define and give examples of target markets for specific products
- EN 4.1.2                      Identify elements of marketing (e.g., product, place, price, and promotion)
- EN 4.1.3                      Design a new product to meet customer wants and price it
- EN 4.1.4                      Create promotional activities for the product created
- EN 4.1.5                      Discuss the importance of responding to customer concerns
- EN 4.1.6                      Discuss the importance of a business giving back to the community

## **EN 5                      Finance (Using Financial Concepts and Tools Needed by the Entrepreneur to Make Business Decisions)**

**EN 5.1**                      ***Standard:** Students identify cash needs and sources and types of funding and interpret financial statements.*

- EN 5.1.1                      Identify the resources (and their costs) needed to produce a specific product
- EN 5.1.2                      Determine the costs of starting and operating a planned business
- EN 5.1.3                      List and explain the advantages and disadvantages of common sources from which entrepreneurs can borrow money
- EN 5.1.4                      Define the differences between debt and equity
- EN 5.1.5                      Explain the importance of financing statements and examine a profit and loss statement to determine whether a business is profitable.

## **EN 6                      Accounting (Establishing, Maintaining, and Analyzing Appropriate Records for Making Business Decisions)**

**EN 6.1**                      ***Standard:** Students understand the importance of keeping business records and identify the types of business records entrepreneurs need.*

- EN 6.1.1                      Identify the reasons for keeping business records and describe problems that might be caused by failure to keep business records (e.g., taxes, payroll, personnel, and customer)
- EN 6.1.2                      Identify how businesses use technology to keep records and identify the advantages and disadvantages of keeping records manually or electronically
- EN 6.1.3                      Identify and complete basic records (e.g., cash sales receipts, credit card receipts, and checkbook entries) for a business
- EN 6.1.4                      Determine if a business is making a profit based on business records

## **EN 7                    Management (Creating a Plan for an Entrepreneurial Undertaking)**

**EN 7.1                    *Standard: Students develop a management plan for an entrepreneurial venture.***

- EN 7.1.1                Create a personal vision statement for the next five years and develop strategies for achieving that personal vision
- EN 7.1.2                Explain the advantages and disadvantages of having friends and family members as employees
- EN 7.1.3                Identify skills and qualities needed by employees in specific jobs
- EN 7.1.4                Identify business problems that could be solved through the implementation of technology
- EN 7.1.5                Establish criteria to use for monitoring achievement of a personal vision
- EN 7.1.6                Describe risks faced by business owners and explain ways owners can protect themselves from risks

## **EN 8                    Global Markets (Becoming Aware of the Nature of Global Markets)**

**EN 8.1                    *Standard: Students analyze the effect of cultural differences, export/import considerations, and trends on an entrepreneurial venture in the global marketplace.***

- EN 8.1.1                Define culture and identify how cultural differences influence businesses
- EN 8.1.2                Recognize how globalization of the workforce affects the way business is conducted
- EN 8.1.3                Describe the concepts of import and export and identify products the U.S. imports and exports
- EN 8.1.4                Describe current trends in entrepreneurial opportunities in the global marketplace

## **EN 9                    Legal (Learning How Forms of Business Ownership, Government, and Ethics Affect Entrepreneurial Operations)**

**EN 9.1                    *Standard: Students analyze how specific forms of business ownership, government regulations, and business ethics affect entrepreneurial ventures.***

- EN 9.1.1                Identify the differences between a sole proprietorship, a partnership, and a corporation
- EN 9.1.2                Define, give examples of, and identify the advantages and disadvantages of franchising
- EN 9.1.3                Describe special types of business ownership (e.g. S corporations and cooperatives)
- EN 9.1.4                Explain reasons for government regulation of businesses
- EN 9.1.5                Identify ethical responsibilities and problems that entrepreneurs face
- EN 9.1.6                Describe a personal code of ethical behavior

## **EN 10                  Business Plans (Learning the Purpose of Business Plans)**

**EN 10.1                  *Standard: Students analyze the components of a business plan***

- EN 10.1.1                Describe the importance of planning and discuss why businesses must plan
- EN 10.1.2                Define long-term and short-term planning and identify long- and short-term planning activities for a specific event
- EN 10.1.3                Identify the major components of a business plan
- EN 10.1.4                Describe the use of a business plan
- EN 10.1.5                Create a business plan for an entrepreneurial venture